

August 14, 2002. By this amendment, Applicants have amended the specification to correct informalities. Moreover, claims 1, 2, 7, and 9-12 were amended to more clearly define the invention, and claims 13 and 14 were added. Support for the changes to claims 1, 2, 7, and 9-12 can be found in various locations throughout the specification. For example, support for claims 1, 2, 7, and 9-12 can be found in the specification at page 14, line 9 through page 18, line 1. No new matter has been added. Claims 1-14 are pending.

### **Objection to the Specification**

The Examiner objected to the disclosure because of alleged informalities. Applicants have amended the specification in a manner that addresses the issues raised by the Office Action. In particular, Applicants have amended the specification in a number of places to correct misspellings. Therefore, Applicants respectfully request that the objection to the disclosure be withdrawn.

### **Rejections Under 35 U.S.C. § 102**

Claims 1-12 were rejected under 35 U.S.C. § 102(b) as anticipated by *Yutaka*, Japanese Patent No. JP09-173298. Claims 1-12 were also rejected under 35 U.S.C. § 102(b) as anticipated by *Kazuhiro*, Japanese Patent No. JP11-313800. Claims 1-6 and 8-12 were rejected under 35 U.S.C. § 102(b) as anticipated by *Okashita et al.*, Japanese Patent No. JP2000-189387. Still further claims 1 and 6-8 were rejected under 35 U.S.C. § 102(b) as anticipated by *Nanjo*, U.S. Patent No. 5,668,621. Applicant traverses these rejections for the following reasons.

Independent claim 1 recites a fundus camera comprising:

(a) an observation optical system having an objective lens and a photographing element

for photographing a fundus of an eye to be examined via the objective lens, the fundus being illuminated with illumination light for observation;

(b) a monitor on which an image of the photographed fundus is displayed;

(c) a fixation-target presenting optical system for presenting a fixation target via the objective lens so that the fixation target is visually identified by the eye;

(d) a fixation-target moving unit by which a position to present the fixation target is [shifted] moved to a desired position;

(e) a first display-control unit by which a fixation target image formed optically or electrically to indicate the position of the fixation target [to be shifted is superposed] on the fundus is displayed on the fundus image displayed on the monitor; and

(f) a second display-control unit by which a guide target for guiding movement of the fixation-target is displayed graphically in a predetermined position on the fundus image displayed on the monitor.

Independent claim 9 recites a fundus camera comprising:

(a) an observation optical system having an objective lens and a photographing element for photographing a fundus of an eye to be examined via the objective lens, the fundus being illuminated with illumination light for observation;

(b) a monitor on which an image of the photographed fundus is displayed;

(c) a fixation-target presenting optical system for presenting a fixation target via the objective lens so that the fixation target is visually identified by the eye;

(d) a fixation-target moving unit by which a position to present the fixation target is moved to an intended position;

(e) a first display-control unit by which a fixation target image formed optically or electrically to indicate the position of the fixation target on the fundus is displayed on the fundus image displayed on the monitor; and

(f) a second display-control unit having a program by which a guide target for guiding the fixation target to plural parts of the fundus is displayed graphically in a predetermined position on the fundus image displayed on the monitor, and a display form of the guide target is varied based on a sequence of photographing of the plural parts.

*Yutaka* discloses a fundus camera capable of generating a panoramic image by moving a position of a fixation lamp to present a fixation target and photographing a plurality of parts of the fundus. Moreover, in the fundus camera, a fixation lamp is moved by operating a lever, and a display of a fundus image is changed based on data concerning a detected position to which the fixation lamp is moved. In this manner, the fundus camera stores an image of the fundus so that duplication of that image can be prevented.

*Kazuhiro* discloses a fundus camera that three-dimensionally photographs a periphery of a fundus by moving a position of a fixation lamp to present a fixation target. In the fundus camera, a character K, which indicates the position of the fixation target, is synthesized with an image of the fundus, and displayed on the monitor in accordance with the output from a fixation target moving switch. As a result, the fundus camera guides the line of sight of an examinee. In

addition, *Kazuhiro* discloses that aligning reference marks ML and MR, which move in accordance with the position of the fixation target, are overlapped with alignment visual mark images AL' and AR'. Thus, the optical axis of the camera is always positioned at the center of a pupil.

*Okashita* discloses a fundus camera capable of generating a panoramic image by moving a position of the fixation lamp to present a fixation target and for photographing a plurality of parts of the fundus. *Okashita* further discloses that in the fundus camera LEDs 51a and 51f are arranged at predetermined positions, and are selectively lit. In this manner, an observed image is associated with a photographed still-frame image based on the positional data of the LEDs. This observed image is displayed on the monitor.

*Nagano* discloses a fundus camera provided with an optical system for projecting an alignment target for detecting a working distance on an eye to be examined.

In contrast, the present invention includes, among other things, "a fixation target moving unit by which a position to present the fixation target is moved to a desired position," and "a first display control unit by which a fixation target image formed optically or electrically to indicate the position of the fixation target on the fundus is displayed on the fundus image displayed on the monitor." Applicants submit that neither of *Yutaka*, *Kazuhiro*, *Okashita*, nor *Nagano* disclose, teach or suggest at least the above-mentioned elements of the claims. Instead, *Yutaka* and *Okashita* disclose a position at which a fundus image to be photographed occupies on the panoramic image. *Kazuhiro*, on the other hand, discloses that reference marks ML and MR are used to position the optical axis of the camera on the pupil center at all times. Moreover,

*Nagano* merely discloses projecting an alignment target to detect a working distance of an eye to be examined.

To properly anticipate a claim, the document must disclose, explicitly or implicitly, each and every feature recited in the claim. See Verdegall Bros. v. Union Oil Co. of Calif., 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). Each of *Yutaka*, *Kazuhiro*, *Okashita*, and *Nagano* fail, however, to disclose, teach, or suggest at least a fixation target moving unit by which a position to present the fixation target is moved to a desired position,” and “a first display control unit by which a fixation target image formed optically or electrically to indicate the position of the fixation target on the fundus is displayed on the fundus image displayed on the monitor, respectively. For at least these reasons, Applicants submit that each of *Yutaka*, *Kazuhiro*, *Okashita*, and *Nagano* do not anticipate independent claim 1. Applicants respectfully request, therefore, withdrawal of the rejection of claim 1 under 35 U.S.C. § 102, and allowance of this claim.

Based on the foregoing discussion, Applicants further submit that *Yutaka*, *Kazuhiro*, and *Okashita* also do not anticipate the subject matter of claim. Thus, Applicants respectfully request that the rejection of claim 9 under 35 U.S.C. § 102 be withdrawn, and this claim be allowed.

Claims 2-8 and 10-14 depend from one of independent claims 1 and 9. By virtue of this dependency, Applicants submit that claims 2-8 and 10-14 are allowable for at least the reasons discussed above. Moreover, claims 2-8 and 10-14 further distinguish over *Yutaka*, *Kazuhiro*, *Okashita*, and *Nagano*, by the additional subject matter recited therein, and particularly within

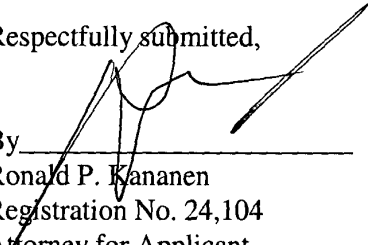
each respective claim combination. Thus, Applicants respectfully request that the rejection of claims 2-8 and 10-14 under 35 U.S.C. § 102 be withdrawn.

### **Conclusion**

Based on at least the foregoing amendments and remarks, Applicants submit that claims 1-14 are allowable, and this application is in condition for allowance. Accordingly, Applicants request favorable reexamination and reconsideration of the application. In the event the Examiner has any comments or suggestions for placing the application in even better form, Applicants request that the Examiner contact the undersigned attorney at the number listed below.

Respectfully submitted,

DATE: February 14, 2003

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**Appendix to Amendment****In the Specification:**

Please amend the specification as shown below in clean form. A marked-up version of the specification is appended hereto.

Please amend the paragraph beginning on page 18, line 21 and continuing on page 19 with the following new paragraph:

According to the second preferred embodiment, the fixation target (the fixation-target image 36') to be displayed on the monitor 50 is electrically synthesized, while it is optically synthesized according to the first preferred embodiment. To be more specific, operating the switch 80 connected to the control part 55 shifts the position of the transmitting portion 70a and its positional information is converted into electronic signals to be captured by the control part 55. With reference to the positional information, a character 70C, which has been generated by the image-processing part 51, is [superposed] superimposed on a fundus image ER to be displayed on the monitor 50. (The position of the fixation target on the fundus image ER is indicated.) Since the guide targets 100 are also displayed on the monitor 50 in the second preferred embodiment, the fixation target is moved with the switch 80 such that the character 70C is placed at one of the marks of the guide targets 100 as appropriate for photographing. As a matter of course, the display form of the guide targets 100 may be varied.

Please amend the second paragraph on page 1, line 3 with the following new paragraph:

Fundus cameras for photographing a periphery of a fundus are known [which is] constructed such that an internal fixation target (fixation light) may be moved to guide a line of

sight of an examinee. For moving a fixation target, several methods have been suggested, for example, a method by which a point light source as a fixation target is moved with a lever and the like, and a method by which one of a plurality of point light sources provided in predetermined positions is selectively lit. For recognizing a travel position of the fixation target, a method has been suggested by which an image of the fixation target is optically synthesized and displayed together with an image of the fundus on a monitor for observation.

Please amend the second paragraph on page 8, line 6 with the following new paragraph:

The observation optical systems 3 shares an optical path from the lens 20 to return mirror 25 with the photographing optical system 2. (The return mirror 25 is placed in the position of the solid lines except when photographing is performed.) A half mirror 30 has a reflectance larger than [a] its transmittance [it has]. On an optical path in the direction of reflection from the half mirror 30 are disposed a relay lens 31 and a CCD camera 32 for observation having a sensitivity to the visible region through the infrared region. The infrared light reflected from the fundus Ef, which is reflected by the return mirror 25 if the mirror 25 is placed in the position of the solid lines, is further reflected by the half mirror 30, and then enters the camera 32 through the lens 31 to form an image of the fundus Ef on a photographing surface of the camera 23. Output from the camera 32 is inputted to a color monitor 50 which doubles as a monochrome monitor, so that an image ER of the fundus Ef is displayed on the monitor 50.

**In the Claims:**

In accordance with 37 CFR 1.121(c)(1)(ii), amended claims 1, 2, 7, and 9-14 are set forth in a marked-up version below:

1. (Amended) A fundus camera comprising:

(a) an observation optical system having an objective lens and a photographing element for photographing a fundus of an eye to be examined via the objective lens, the fundus being illuminated with illumination light for observation;

(b) a monitor on which an image of the photographed fundus is displayed;

(c) a fixation-target presenting optical system for presenting a fixation target via the objective lens so that the fixation target is visually identified by the eye;

(d) a fixation-target moving unit by which a position to present the fixation target is [shifted] moved to a desired position;

(e) a first display-control unit by which a fixation target image formed optically or electrically to indicate the position of the fixation target [to be shifted is superposed] on the fundus is displayed on the fundus image [to be] displayed on the monitor; and

(f) a second display-control unit by which a guide target for [moving] guiding movement of the fixation-target is displayed graphically in a predetermined position on the fundus image displayed on the monitor.

2. (Amended) The fundus camera according to claim 1, wherein the second display-

control unit displays the guide target graphically in a plurality of predetermined positions on the fundus image displayed on the monitor.

7. (Amended) The fundus camera according to claim 1, wherein

(c) the fixation-target presenting optical system comprises a liquid crystal display with a light source behind, and

(d) the fixation-target moving unit includes a screen-control unit which [shifts] moves a position of a light-transmitting portion on the liquid crystal display.

9. (Amended) [The] A fundus camera comprising:

(a) an observation optical system having an objective lens and a photographing element for photographing a fundus of an eye to be examined via the objective lens, the fundus being illuminated with illumination light for observation;

(b) a monitor on which an image of the photographed fundus is displayed;

(c) a fixation-target presenting optical system for presenting a fixation target via the objective lens so that the fixation target is visually identified by the eye;

(d) a fixation-target moving unit by which a position to present the fixation target is [shifted] moved to an intended position;

(e) a first display-control unit by which a fixation target image formed optically or electrically to indicate the position of the fixation target [to be shifted is superposed] on the fundus is displayed on the fundus image [to be] displayed on the monitor; and

(f) a second display-control unit having a program by which [at least one of plural patterns of guide targets for moving] a guide target for guiding the fixation target to plural parts of the fundus is displayed graphically in a predetermined position on the fundus image displayed on the monitor, and a display form of the guide target is varied based on a sequence of photographing of the plural parts; and

a specifying unit which specifies at least one of the plural patterns of the guide targets].

10. (Amended) The fundus camera according to claim 9, wherein the program varies (a) the display form of the guide target in accordance with a predetermined sequence of photographing of the plural parts [, the guide target being displayed in a plurality of predetermined positions].

11. (Amended) The fundus camera according to claim 9, further comprising a sensor which detects that the fixation target has been moved to each [predetermined position] of the plural parts, and

wherein the program varies [a] the display form of the guide target based on a result detected by the sensor.

12. (Amended) The fundus camera according to claim 9, wherein the [second display-control unit] program varies [a] the display form of the guide target in response to input of a trigger signal for photographing or a photographing-completion signal of the plural parts.

13. (Newly-added) The fundus camera according to claim 1, wherein the second display-control unit has a memory in which plural guide targets of different patterns are stored and displays a selected guide target in the predetermined position.

14. (Newly-added) The fundus camera according to claim 9, wherein the second display-control unit has a memory in which plural guide targets of different patterns are stored and displays a selected guide target in the predetermined position.